

IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

1. (currently amended) A method for transforming data formats between different database systems management system programs including a host computer and a disk storage device for storing data, said method comprising the steps of:

providing, in said host computer, a database management system program, a computer program application which is executed on said database management system program, a skeleton program for instructing data format transformation and ~~for~~ storing of a transformed data volume at a storage device connected to said host computer, information for said skeleton program to determine a data format transformation program in regard to a data volume in said disk storage device, said information being a table which sets forth corresponding relations between a plurality of data format transformation programs and addresses of said data format transformation programs in said disk storage device, and a first communication program for communication with said disk storage device;

providing, in said disk storage device, a plurality of data format ~~transforming-transformation program-programs each~~ for executing data format transformation and a second communication program for communication with said host computer;

obtaining, by said skeleton program, an address of a particular data format transformation program for performing data format transformation of a

data volume to a transformed data volume from said table, said address of the particular data format transformation program including a Logical Unit Number (LUN) and Port Identifier (ID) indicating a particular data volume in the disk storage device where the particular data format transformation program is stored;

_____sending, from said skeleton program the disk storage device, a request to ~~said~~ cause execution of the particular data format transformation program on said disk storage device via said first communication program at the time of data format transformation to instruct data format transformation and storing, by said disk storage device, the transformed data volume within said disk storage device;

receiving, by ~~said~~ the particular data format transformation program, the request via said second communication program; and

transforming, by ~~said~~ the particular data format transformation program, the data volume having a data format of one database management system program on which said computer program application is executed into another data volume having the data format of another database management system program on which another computer program application is executed, said data format for said one database management system program being different from said data format of said another database management system program,

wherein said request comprises:

the address information for specifying ~~said~~ the particular data format transformation program,

an address of source data,

a size of data to be transformed, and
a destination address efat which the transformed data volume is to be stored.
_____ wherein said host computer retrieves the transformed data volume
from the destination address.

Claim 2 (canceled).

3. (currently amended) A host computer having a disk storage device attached for implementing a database management system, comprising:

a database management system program;
_____ a computer program application which is executed on ~~one the~~
database management system program, ~~and;~~
_____ a skeleton program for ~~selecting~~ instructing a data format transformation and storing of a transformed data volume at the disk storage device attached to said host computer;
_____ information for said skeleton program to determine a data format transformation program in regard to a data volume in said disk storage device.
said information being a table which sets forth corresponding relations between a plurality of data format transformation programs and addresses of said data format transformation programs in said disk storage device program
~~based on said information and for sending a request to a data format transformation program in said disk storage device in order to direct said data format transformation program to~~

wherein said skeleton program obtains, an address of a particular data format transformation program for performing data format transformation of a data volume to a transformed data volume from said table, said address of the particular data format transformation program including a Logical Unit Number (LUN) and Port Identifier (ID) indicating a particular data volume in the disk storage device where the particular data format transformation program is stored;
~~perform a data format transformation of a data volume having the data format of said database management system program on which said computer program application is executed into another data volume having the data format of another database management system program, said data format of said one database management system program being different from said data format of said another database management system program and to store data volume having said another data format within said disk storage device; and~~

a communication program for communication with said disk storage device, wherein said skeleton program sends a request to cause execution of the particular data format transformation program on said disk storage device via said communication program at the time of data format transformation to instruct data format transformation and storing, by said disk storage device, the transformed data volume within said disk storage device,

wherein the particular data transformation program, performs a data format transformation of a data volume having the data format of said database management system program on which said computer program application is executed into another data volume having the data format of another database management system program, said data format of said

database management system program being different from said data format
of said another database management system program and to store data
volume having said another data format within said disk storage device:

wherein said request comprises:

the address information for specifying said the particular data format
transformation program,

an address of source data,

a size of data to be transformed, and

a destination address ~~of~~ at which the transformed data volume is to be
stored, and

wherein said host computer retrieves the transformed data volume
from the destination address.

Claim 4 (canceled).

5. (currently amended) A disk storage device attached to a host computer for storing data of a database management system, comprising:

a plurality of data format transformation programs each for performing,
within said disk storage device, a data format transformation,

wherein, upon receipt of a request from a skeleton program provided in
the host computer instructing data format transformation by a particular data
format transformation program, data format transformation is conducted by
the particular data format transformation program of a data volume having a
data format of ~~one~~ the database management system program, on which a
computer program application is executed into another data volume having

the data format of another database management system program upon reception of a request from a skeleton program included in said host computer, said data format for said one database management system program being different from said data format of said another database management system program, and storing data volume having said another data format in said disk storage device

wherein said skeleton program determines the particular data format transformation program based on information including a table which sets forth corresponding relations between a plurality of data format transformation programs and addresses of said data format transformation programs in said disk storage device; and

wherein said skeleton program obtains the address of the particular data format transformation program for performing data format transformation of a data volume to a transformed data volume from said table, said address of the particular data format transformation program including a Logical Unit Number (LUN) and Port Identifier (ID) indicating a particular data volume in the disk storage device where the particular data format transformation program is stored;

_____ a communication program for communication with said host computer,

wherein said skeleton program sends a request to cause execution of the particular data format transformation program on said disk storage device via said communication program at the time of data format transformation to instruct data format transformation and to cause storage of the transformed data volume within said disk storage device,

_____ wherein said request comprises:

the address information for specifying said the particular data format
transformation program,
an address of source data,
a size of data to be transformed, and
a destination address of at which the transformed data volume is to be
stored, and
wherein said host computer retrieves the transformed data volume
from the destination address.

Claim 6. (canceled)

7. (currently amended) A method for transforming data formats between different database management system programs according to claim 1, wherein said disk storage device connects to another host computer.

8. (currently amended) A method for transforming data formats between different database management system programs according to claim 7, wherein said computer program application and said another database management system program are executed in said another host computer.

9. (currently amended) A method for transforming data formats between different database management system programs according to claim 8, wherein said host computer is a mainframe and said another host computer is a open system computer.

10. (currently amended) A method for transforming data formats between different database management system programs according to claim 21, wherein said request is transferred from said host computer to said disk storage device by using the Internet Protocol (IP).

11. (currently amended) A method for transforming data formats between different database management system programs according to claim 21, wherein said request is transferred from said host computer to said disk storage device by using Small Computer System Interface (SCSI) protocol.

12. (previously presented) A host computer according to claim 3, wherein said request is transferred from said host computer to said disk storage device by using Transfer Control Protocol (TCP/IP).

13. (previously presented) A host computer according to claim ~~4~~3, wherein said request is transferred from said host computer to said disk storage device by using Small Computer System Interface (SCSI) protocol.

Claims 14-18 (canceled).

19. (new) A host computer according to claim 5, wherein said request is transferred from said host computer to said disk storage device by using Transfer Control Protocol (TCP/IP).

20. (new) A host computer according to claim 5, wherein said request is transferred from said host computer to said disk storage device by using Small Computer System Interface (SCSI) protocol.

21. (new) A host computer according to claim 1, wherein said request is transferred from said host computer to said disk storage device by using Transfer Control Protocol (TCP/IP).

22. (new) A method for transforming data formats between different database management system programs according to claim 3, wherein said request is transferred from said host computer to said disk storage device by using the Internet Protocol (IP).

23. (new) A method for transforming data formats between different database management system programs according to claim 5, wherein said request is transferred from said host computer to said disk storage device by using the Internet Protocol (IP).